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12-03-07

04:59 PM

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Implement the
Commission's Procurement Incentive Framework
and to Examine the Integration of Greenhouse Gas
Emissions Standards into Procurement Policies.

Rulemaking R.06-04-009

CEC Docket no. D.07-OHP-01

**COMMENTS OF THE GREEN POWER INSTITUTE
ON TYPE AND POINT OF REGULATION ISSUES**

December 3, 2007

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Introduction

Pursuant to the November 9, 2007, *Administrative Law Judge's Ruling Requesting Comments on Type and Point of Regulation Issues*, as modified by the November 30, 2007, *Administrative Law Judge's Ruling Extending Comment Deadlines and Addressing Procedural Matters*, in R.06-04-009, the **Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies**, the Green Power Institute (GPI) respectfully submits these *Comments of the Green Power Institute on type and Point of Regulation Issues*. Our Comments address the issues and questions in the ALJ's *Ruling Requesting Comments*.

Benefits of a Market-Based Approach

California's landmark greenhouse gas regulatory legislation, AB 32, permits but does not require the establishment of a cap-and-trade system for greenhouse gas emissions allowances. A market-based approach, such as a cap-and-trade system, has the virtue of being able, at least theoretically, of producing a least-cost solution to the achievement of the legislation's targets, assuming that there is a perfectly functioning marketplace.¹ However, as is so often the case in trying to turn attractive theoretical economics into effective real-world policy solutions, there is many a slip between the cup and the lip. California is breaking new ground in providing a comprehensive solution to limiting greenhouse gas emissions, and in many areas working models for how to accomplish our goals are simply not available. That means that there will inevitably be stumbles and missteps, and future adjustments will surely be needed. We cannot, and should not, expect to create the optimal regulatory system on day one.

¹ We use the term "perfectly functioning marketplace" here in the sense of academic economics. A perfectly functioning marketplace includes such attributes as full transparency, complete information accessible to all market participants, and a complete absence of exercise of market power or manipulation.

The GPI favors the use of competitive market mechanisms wherever they can be applied effectively and to the ultimate advantage of consumers. For example, we have consistently favored the use of a secondary market for emissions allowances, regardless of the point of regulation or the method of initial allocation of the emissions allowances. However, indiscriminant reliance on the illusion of market forces from the beginning of the program, when markets are neither mature nor functioning competitively, can be a poor policy choice indeed.

Principles and Objectives for Program Design

The GPI endorses the principles and objectives to be considered in evaluating AB 32 program design options listed on pages 2 – 3 of the ALJ's *Ruling*.

Load-Based vs. Source-Based (or Not)

The Commission's own 2006 landmark Decision (D.06-02-032 in R.04-04-003) on adopting a greenhouse gas limitation program, which predated AB 32 by almost a year, signaled the Commission's intention to pursue the limitation of greenhouse gas emissions, and to do so using a load-based approach applied to the state's regulated LSEs.

Subsequently, when the Commission opened the current greenhouse gas proceeding, R.06-04-009, still well before AB 32 had taken form, the OIR affirmed the Commission's intention to pursue a load-based approach to greenhouse gas emissions regulation.

The year 2007 has proven to be less hospitable to the load-based approach to regulating greenhouse gas emissions associated with the electricity sector than was 2006. The state's AB 32-mandated Market Advisory Committee came out in favor of the "first-seller" approach with respect to point-of-regulation, which is a variation of a source-based program, and parties to this proceeding are sharply divided in their preferences. In many cases those who would be regulated in a load-based program (retail providers) favor the source-based approach, and those who would be regulated in a source-based program (generators) favor the load-based approach. The essential threshold question for the PUC and the CEC (and subsequently the ARB) to resolve is this: What is in the state's best

interest with respect to point-of-regulation, as we move the development of the AB 32 compliance program forward?

The load-based point-of-regulation approach is based on the theory that the most effective way to control the greenhouse gas emissions associated with the supply of electricity to California consumers is to regulate the state's retail providers, and let them adjust their supply mix explicitly in order to meet their emissions obligations. The supply-based point-of-regulation approach imposes costs on the fossil energy generators who feed the grid, who must acquire emissions allowances in order to retire their greenhouse gas emissions liabilities. Using this approach retail providers receive indirect price signals about the cost of carbon-based energy, rather than having to account explicitly for the emissions behind their supply mix. This is the essential choice facing the CPUC and CEC as they deliberate the point-of-regulation issue.

The load-based model involves tracking emissions liabilities from the generator to the retail provider. Retail providers are obligated to acquire sufficient allowances to retire their accumulated emissions liabilities. The source-based model requires generators to obtain sufficient emissions allowances to retire their individual emissions at the source, regardless of where or how the allowances are fed into the market. The load-based model is predicated on retail sellers being able to adjust their supply portfolios as the supply of emissions allowances decreases. Programmatic costs are incurred by the retail seller, who procures lower-carbon, but presumably higher-cost resources. By way of contrast, in the source-based model the costs for obtaining increasingly rare allowances are incurred directly by the generators of greenhouse gases, who pass these costs on to the power consumers through their retail providers. In many ways the source-based model is similar to a carbon-tax based system, in which costs are assessed directly to the greenhouse gas emissions associated with fossil fuel consumption. In this approach retail providers find their carbon-intensive resources becoming increasingly expensive, and presumably reach the tipping point and switch to cleaner resources, which are now the cheaper (or comparable) alternative. Either way, the retail seller's cost of procurement will increase by whatever difference there is between today's costs of fossil-fuel generated electricity, in

which carbon intensity is neither valued nor penalized, and the cost of the low-carbon or carbon-free electricity, including efficiency, that replaces it.

The adoption of flexible trading rules for both greenhouse gas emissions allowances and emissions liabilities can blur the distinction between a load-based regulatory system and a source-based system. Any successful greenhouse gas reduction program will have to be able to link emissions allowances to emissions liabilities. Emissions arise with the generator, while allowances are the creation of the state, and may be fed into the system in a variety of ways (bureaucratic distribution with or without fees, auctions of various kinds) and places (retail seller, generator, open auction). Ultimately, each unit of emissions will have to be matched with an allowance and retired together permanently. There will have to be consequences for parties who end up with emissions liabilities for which there are no matching allowances, in order for the program to have any teeth. A comprehensive tracking system for both emissions and allowances is the key to making the system work, whether it be load-based, source-based, or simply applied to any market participant holding emissions liabilities at the end of a compliance period.

Load-Based Cap and Trade System Design

Question Q5 asks about the risks of contract shuffling under a load-based emissions control program. In fact, the risks of contract shuffling are equally applicable, if not more so, to a source-based program, and we discuss them together in that context. The GPI is not indifferent to the risks of contract shuffling, nor do we discount the damage that contract shuffling does to overall efforts to control greenhouse gas emissions. However, we may be somewhat less focused on this problem than some other parties, because we are confident that over the coming years the entire western interconnect will become subject to greenhouse gas regulation, either from within or from above, and the shufflers will ultimately have nowhere to go. During the November 5, 2007, workshop at the CEC in this joint proceeding on the subject of Allowance Allocation, the NRDC representative asserted that all parties have been on notice since at least the early 1990s about the risks of climate change and continued unfettered greenhouse gas emissions. We agree, and we add that from this point forward there is simply no possible argument in favor of those that

take the position of, “Who knew?” In order for contract shuffling to work, some jurisdiction elsewhere in the western interconnect will have to accept the high-carbon electricity being shuffled away from California. That “cheap” energy will come laden with environmental risk. This is not to say that we believe that there is nothing to worry about with respect to contract shuffling, or that the Commissions should not put basic safeguards into place. We are simply commenting on the proportionality of the potential problem.

Questions Q6 and Q7 address issues that relate to the tracking and reporting of emissions liabilities. The GPI has been a consistent advocate for the development of a regional, comprehensive tracking system for greenhouse gas emissions, an effort that would be, in effect, parallel to the recently initiated WREGIS regional tracking system for renewable energy. In fact, it might be possible to develop a regional greenhouse gas tracking system by building on the WREGIS platform, potentially saving time and money. The WREGIS software vendor (APX) has repeatedly stated that this is a possibility, and has experience with multi-attribute tracking systems in other parts of the country. In our opinion developing a regional greenhouse gas tracking system is no longer a groundbreaking proposition; it is something we already know how to do. Moreover, anything short of comprehensive regional tracking will inevitably present opportunities to sneak high-carbon electricity into the system wherever there are unspecified pools with fixed-emissions assignments. This is the case regardless of whether the point-of-compliance is load-based or source-based.

Emissions liabilities can be linked to their underlying energy and tracked from the generator to the retail seller, or they might be decoupled from the energy, allowing generators and marketers to deal with their energy products and emissions liabilities as separate entities.² Similarly, allowances might be tradable among retail sellers, or they might be tradable among all market participants. In the latter case, for example, a generator might have the option of purchasing some amount of allowances in order to

² Note that the decoupling of emissions liabilities from their underlying energy is one of the essential features of the proposal put forward in this proceeding by Western Resource Advocates.

eliminate some or all of the carbon content of the electric product he offers on the market, allowing him to offer a cleaner product to potential customers, albeit at a higher cost. By allowing forward trading of emissions allowances, and decoupled trading of emissions liabilities, there is little difference between a load-based system and a source-based system like the first-seller approach. At the end of each compliance period, any market participants holding emissions liabilities will have to have offsetting allowances, or face penalties

Source-Based Cap and Trade System Design

The ALJ's *Ruling* asks for comments on the possibility of implementing a pure source-based regulatory system within California, in which electricity imports into the state would not be regulated at all. Question Q8 asks: "Do you view this approach as compliant with Assembly Bill (AB) 32?" The answer is an emphatic **NO**, it is not compliant with the law.

California is an enormous market for electricity, consuming more than half of the electricity on the western grid. Despite generating a huge amount of power inside of the state, some twenty to thirty percent of the state's electricity supply is imported from out-of-state sources. In particular, it is important to emphasize that almost all of the coal-fired electricity that is used in California is generated outside of the state and imported. Thus, the treatment given to imported power in California's AB 32 compliance program is, in effect, the treatment that will be conferred on almost all of California's coal-sourced power. AB 32 specifies that its application covers all energy used by California consumers, including imports. Ignoring electricity imports cannot possibly be considered compliant with AB 32.

More serious consideration is due the Market Advisory Committee's "first-seller" proposal, where in-state generators are regulated at the source, and imports are charged to the importer. The source-based approach to regulating electric-sector greenhouse gas emissions does have one distinct advantage over the load-based approach: It does not require the tracking of emissions liabilities, as they are retired at their point of generation. However, the source-based approach also has a distinct drawback: It does not work very

well for power that is imported into the state. The Market Advisory Committee report addressed this problem by proposing the “first seller” variation of a source-based system. In the first-seller approach imported power is handled by applying the regulation directly to the importer, rather than tracing it to its source, the out-of-state generators. However, most imports of electricity into California are from unspecified sources, and if regionally-specific fixed emissions factors are applied to such imports a considerable loophole is created, as emissions allowance requirements for this power are no longer directly linked to their source.

While the first-seller proposal does address electricity imports, it is undercut by its use of fixed greenhouse gas emissions factors for pooled imports. Pooled resources with fixed emissions factors may be a greater liability to a source-based system than to a load-based system, because in load-based systems there are fewer entities to regulate, the entities are California based, and they are used to being regulated by state agencies and commissions. Regulating importers (first sellers) may involve extending California regulatory authority to out-of-state public and private utility companies, and to out-of-state brokers.

Finally, under the general category of source-based regulatory approaches, the ALJ’s *Ruling* presents a hybrid approach on pg. 7, labeled: *Source-based for In-state Generation, Load-based for Imports*. While we appreciate the fact that in this section of the *Ruling* the Commissions appear to recognize that imports are a bigger problem for the first-seller approach than for the load-based approach, this particular hybrid approach is not the solution. The source-based in-state / load-based import hybrid approach would require state regulators to set separate emissions targets for domestic and imported power for each regulated retail provider, with little basis on which to do so. It would also needlessly limit the flexibility of the retail providers to meet their emissions targets. This alternative does not meet the requirements of AB 32, and should be rejected.

Deferral of Cap and Trade Implementation

Section 3.5 of the ALJ’s *Ruling* asks, on page 8, whether instead of moving forward immediately with a cap-and-trade system, “California would work with other Western

states to develop a Western Climate Initiative cap-and-trade system and/or work toward a national cap-and-trade program.” We do not believe that this has to be an either-or proposition. The Western Climate Initiative is already underway (California leadership was key to its creation) and, we hope, continuing to attract new participants. We are strong proponents of a regional and national approach, and strongly urge that California continue to make the pursuit of a regional and national approach to greenhouse gas emissions control a matter of highest priority. With California so dependent on imported energy, and the fact that some of that imported energy is the most carbon-intensive on the western grid, only a regional approach to greenhouse gas control can truly avoid abuses practiced on California consumers.

Given the enormity of the effort we face in meeting the targets and goals of the Global Warming Solutions Act, as well as the bigger picture of combating global climate change, our opinion is that it is not necessary to settle every issue immediately with respect to AB 32 implementation, including exactly what role a cap-and-trade program will play in overall efforts to limit greenhouse gas emissions. What is most important now, at the beginning of the process, is to lay a solid foundation for the future, and design the program to be able to change and respond to experience that is gained as implementation progresses. We believe that a solid foundation for future compliance with AB 32 begins with the development of a comprehensive regional tracking system for greenhouse gases, both emissions liabilities and emissions allowances. If postponing the implementation of a cap-and-trade system allows the Commissions to concentrate their efforts on the development of a regional approach and tracking system, then we are in favor of doing so.

Question Q23 asks several questions, including whether the emissions targets in AB 32 can be met without the immediate implementation of a cap-and-trade system. It could be noted that California initiated the process of combating greenhouse gas emissions long before the enactment of AB 32, when it adopted the original state *Energy Action Plan* in 2003, in response to the 2000 – 2001 energy crisis, and created the state’s preferred resource loading order. The state’s efforts to increase the efficiency of energy use, and to increase the production and use of renewable energy, are key components of any possible

solution to the meaningful reduction of greenhouse gas emissions. Given the momentum already developed by the efficiency and RPS programs, we believe that their continuation is absolutely prerequisite to the attainment of the targets in AB 32. It would not be unreasonable to predicate AB 32 compliance on these programs, at least in the beginning. This is a big part of the reason that we support the extension of the RPS program to the stretch target of 33 percent renewables by 2020.

Question Q24 asks how deferral of a cap-and-trade program would affect the state's integration into a subsequent regional greenhouse gas control program. The GPI's opinion is that the best way to ensure that California can easily integrate with whatever regional and national programs to control greenhouse gas emissions eventually emerge, is for the state to continue to be on the leading edge of the development of the regional and national approaches.

Question Q25 asks what the state should do in the event that it defers implementation of a cap-and-trade system in anticipation of a regional approach, only to see the regional approach fail to materialize in a timely fashion. Our opinion is that this is not an issue that needs to be decided now. The state can decide to begin the implementation of its own cap-and-trade system at any time in the future that it deems it desirable to do so.

Question Q26 asks: "What flexible compliance mechanisms could be integrated into a non-market based GHG emission reduction approach." It is likely that the core of a non-market based approach would be the existing programs in efficiency and renewables. These programs already have built-in flexible compliance mechanisms of their own, which should allay any concerns here.

Recommendation and Comparison of Alternatives

In our previous *Comments* in this proceeding on the point-of-regulation issue, filed August 6, 2007, on page 2 we contended:

Load-based vs. source based regulation may not be the most important question that needs to be settled quickly in order to design an effective program for reducing the greenhouse gas emissions associated with electricity production. In our opinion, the more important threshold issues that need to be addressed are:

- Allocation and distribution of emissions allowance rights
- Tracking and trading rules for emissions liabilities and emissions allowances
- Compliance and enforcement rules

We continue to believe that making a final determination now between a load-based compliance system and a source-based compliance system is not necessarily a threshold decision for the development of the AB 32 program. Moreover, we believe that transitioning from a load-based system to a source-based system at some point in the future, should such a transition be indicated, is not as complicated as some parties have suggested, particularly if a comprehensive regional tracking system is created for both greenhouse gas emissions liabilities and emissions allowances.

Our most important recommendation is that the Commissions devote as much of their limited resources as possible to the development of an electronic regional reporting and tracking system, working through the Western Climate Initiative and WREGIS frameworks, as well as taking advantage of other supportive opportunities. Such a system would form a solid foundation for whatever direction the future AB 32 compliance program takes, and whatever decisions are made regarding point-of-regulation.

Conclusion

The Green Power Institute cautions the Commission against precipitously jettisoning the current momentum that has been invested in launching a load-based greenhouse gas reduction program for the electricity sector in favor of adopting the Market Advisory Committee's "first-seller" approach. Until a regional approach to greenhouse gas regulation is assured, the load-based approach offers California the best chance to minimize the risks of program manipulation that are associated with imported power. In the meantime, the Commission needs to continue to move forward with and enforce the efficiency and renewables programs, and to concentrate its current efforts on foundational

activities that will support the AB 32 program in the future, regardless of what directions it takes.

Dated December 3, 2007, at Berkeley, California.


Respectfully Submitted,



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PROOF OF SERVICE

I hereby certify that on December 3, 2007, I have served a copy of the COMMENTS OF THE GREEN POWER INSTITUTE ON TYPE AND POINT OF REGULATION ISSUES upon all parties listed on the Service List for this proceeding, R-06-04-009. All parties have been served by email or first class mail, in accordance with Commission Rules.



Gregory Morris